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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,569	12/21/2004	Carl L. Christensen	PU020298	6833

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EXAMINER	
MALEK, LEILA	
ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,569	CHRISTENSEN ET AL.	
	Examiner	Art Unit	
	LEILA MALEK	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-10,12 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,6-10,12 and 14* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/01/2010 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 5-10, 12, and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. Claims 12 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As to claim 12, claim contains limitation "counting, by a broadcast router, a number of transitions of the serialized AES digital audio data from the first transition until the number of transitions reaches a count of 33" which was not described in the specification is such a way as to reasonably convey to one skilled in the art that the inventor(s), at the time the application was filled, had possession of the claimed invention. In contrast to claim 12, Applicant in the disclosure

of the invention and also in the drawings discloses counting the number of clock pulses (clock transitions) from the first transition until the transition count value reaches 33. Claim 14 depends on claim 12; therefore it has been rejected as well.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Angelici et al. (hereafter, referred as Angelici) (see the IDS document submitted on 12/20/2008), in view of Lydon et al. (hereafter, referred as Lydon) (US 6,757,302).

As to claim 1, Angelici discloses a method for extracting selected time information from a stream of serialized AES digital audio data (see Fig. 1, AES signal, decoder, semi-course verification, and PLL and pages 695-696), comprising: detecting, a first transition indicative of a first preamble of said stream of serialized AES digital audio data (see Fig. 3, see page 695, left column, and column 696, right column); detecting, a second transition indicative of a subsequent preamble of said serialized AES digital audio data (see Fig. 3, see page 695, left column, and column 696, right column); determining, a clock pulse count separating said first preamble and said subsequent preamble (see page 696, right column); and transferring the determined clock pulse count as a time (interpreted as the clock generated based on the clock pulse count at the output of the PLL, see Fig.1 and pages 695 and 696) to a decoding

logic circuit (see Fig. 1, wherein the decoder receives the clock generated by the PLL) for decoding said stream of serialized AES digital audio data by utilizing the determined time (see Fig. 1). Angelici discloses all the subject matters claimed in claim 1, except that the steps of detecting first and second transitions (preamble detection) have been performed using a broadcast router. Lydon, in the same field of endeavor, discloses a router, wherein each input of the router is connected to an input processor 14 (see column 1, last paragraph and column 4, lines 29-35). Lydon further discloses that each input processor includes an AES3 receiver 18, which is of conventional form and detects the code violation and locks to the biphase data stream, decodes the biphase mark data to unframed NRZ form, generates output clocks for control purposes and generates overhead bits. Lydon further discloses that the router is a broadcast router (see column 1, third paragraph). It would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Angelici in a broadcast router to reduce the errors in signal detection (see page 694, right column).

5. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angelici and Lydon, further in view of Lyle et al. (hereafter, referred as Lyle) (US 7,295,578).

As to claim 6, Angelici and Lydon do not disclose that the determined time information is also suitable for use in encoding the stream. Lyle, in the same field of endeavor, discloses a communication system comprising a transmitter and a receiver (see Fig. 21), wherein a communication link between the transmitter and the receiver feeds back an audio clock signal generated at the receiver (see column 25, lines 56-57)

to an encoder of the transmitter (see Fig. 29). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Angelici and Lydon as suggested by Lyle to send the clock used for decoding the data to the transmitter to synchronize the clocks used for encoding and decoding.

As to claim 7, Lyle discloses transferring the determined time information to an encoding logic circuit for use in encoding the stream of audio data (see Figs. 21 and 29 and column 25, lines 56-57). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Angelici and Lydon as suggested by Lyle to send the clock used for decoding the data to the transmitter to synchronize the clocks used for encoding and decoding.

As to claim 8, Angelici discloses that the clock pulse count is a count of clock pulses of a fast clock (see Fig. 7, Clock shown in Fig. 7, has been interpreted as a fast clock).

As to claim 9, Lydon discloses that each sub-frame of AES digital audio data includes 32 bits (for instance see Lydon lines 25-35) starting with a preamble, therefore inherently the first transition and second transition are separated by thirty one intervening transitions (i.e. the distance from the preamble in the first sub-frame to the preamble in the second sub-frame), wherein said thirty one intervening transitions are not indicative of said subsequent preamble of said serialized AES digital audio data. Angelici discloses that the that the count value represents the clock pulses between two preambles therefore the combination of Lydon and Angelici teaches that after receiving

the thirty-second intervening transition (i.e. the second preamble) the fast clock pulse count is determined.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Angelici.

As to claim 10, Angelici discloses an apparatus (see Fig. 1) comprising: decoder circuit coupled to receive a stream of serialized digital audio data (see Fig. 1, receiver section), extracting time information (see page 696, right column, wherein the clock pulse counts between two consecutive preambles has been interpreted as time information) from said stream of serialized AES digital audio data during the decoding (i.e. after detecting the preambles and before decoding the rest of the data) thereof wherein said time information is based on determining a time clock pulse count separating a first preamble of said stream of serialized AES digital audio data, and a second preamble of said stream of serialized AES digital audio data (see page 696, right column) and utilizing said extracted time information to decode said received stream of serialized AES digital audio data (see the clock generated by the PLL from the count information and that the decoder receives the clock to decode the signal); and a target component (see the PLL) coupled to said decoder circuit, said target component receiving said extracted time information from said stream of serialized AES digital audio data (i.e. the up/down commands generated based on the count value); wherein said target component utilizes said extracted time information while executing at least one function (i.e. the process of locking the clock) thereof. Angelici discloses all the subject matters claimed in claim 10, except that the decoder circuit extracts the time information from the digital signal (i.e. the semi-course verification is part of the

decoder). However, location of the semi-coarse verification in the receiver is a matter of design choice and it would have been obvious to one of ordinary skill in the art at the time of invention to place the semi-coarse verification block inside the decoder to meet the design requirements of the system.

Allowable Subject Matter

7. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEILA MALEK whose telephone number is (571)272-8731. The examiner can normally be reached on 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leila Malek
Examiner
Art Unit 2611

/L. M./
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